AIR QUALITY PERMIT

Issued to:	Bear Paw Energy, Inc. North Compressor Station P.O. Box 580 Baker, Montana 59313	Permit #2982-02 Application Complete: 12/9/05 Preliminary Determination Issued: 01/18/06 Department's Decision Issued: 02/03/06 Permit Final: 02/22/06 AFS Number: 025-0011

An air quality permit, with conditions, is hereby granted to Bear Paw Energy, Inc., (BPE) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

SECTION I: Permitted Facilities

A. Plant Location

BPE operates a natural gas compressor station and associated equipment located in Section 4, Township 9 North, Range 58 East in Fallon County, Montana. The facility is known as the North Compressor Station, and its purpose is to compress and dry field gas that flows to the Baker Gas Plant, located 15 miles south of the compressor station. A list of permitted equipment is located in the Permit Analysis section of this permit.

B. Current Permit Action

On August 15, 2005, the Department of Environmental Quality (Department) received from BPE a permit application for the proposed replacement of the Vapor Recovery Unit (VRU) by a continuous flare, to control Volatile Organic Compounds (VOC) emissions from the reboiler still vent. The application also requested a limit of 1,800 hours per year for the facility's existing Emergency Flare, to allow the facility to operate as a synthetic minor source.

The Department determined the application was incomplete and requested more information on August 29, 2005. BPE provided a response on September 30, 2005. After review, it was determined that additional information was required and the Department requested this information on October 13, 2005. On December 9, 2005, the Department received the requested Best Available Control Technology (BACT) analysis for the proposed project. BPE's December submittal concluded that it was economically infeasible to install a flare, and revised their proposal to include the removal of the VRU and installation of a flash tank. Permit #2982-02 replaces Permit #2982-01.

SECTION II: Conditions and Limitations

A. Emission Limitations and Operational Requirements:

1. BPE shall install, operate, and properly maintain a non-selective catalytic reduction (NSCR) unit and an air/fuel ratio (AFR) controller on the 600 HP Caterpillar G398TA natural gas compressor engine. Emissions from this engine shall not exceed the following limits (ARM 17.8.752):

Nitric Oxide (NO_x, reported as NO_2)	2.65 lb/hr
Carbon Monoxide (CO)	2.65 lb/hr
VOC	1.32 lb/hr

2. BPE shall operate all equipment to provide the maximum air pollution control for which it was designed (ARM 17.8.752).

3. BPE shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.304).

4. BPE shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

5. BPE shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.4 (ARM 17.8.749).

6. The flare stack shall be used only for equipment blowdown when a shut down is required at North Compressor Station, or for emergency use at North Compressor Station. In the event that repairs are required or an emergency arises, BPE shall route all the VOC and Hydrogen Sulfide (H_2S) vents at the plant to the emergency flare (ARM 17.8.752).

7. BPE shall limit the hours of operation of the emergency flare to 1,800 hours during any rolling 12-month period. This will result in emissions from the emergency flare of less than 41.4 tons of Sulfur oxides (SO_x) and 45.8 tons of CO during any rolling 12-month time period. Any calculations used to establish SO_x and CO emissions shall be approved by the Department and shall be based on the most recent AP-42 factors, unless otherwise allowed by the Department (ARM 17.8.749).

8. BPE shall install a flash tank to operate as part of the glycol dehydration system. The flash tank shall operate at sufficient pressure to keep the flash off gases within the process and not allow any VOC emissions (ARM 17.8.752).

9. BPE shall maintain the glycol recirculation rate at an optimal Triethylene Glycol (TEG)-to-water ratio to minimize VOC emissions (ARM 17.8.749).

10. The condensate loading at the North Compressor Station shall be operated under a vapor balance system. All condensate loading to tank trucks shall be conducted using bottom loading. Vapor flash resulting from loadout operations shall be returned to the condensate storage tank to maintain vapor balanced emissions control. Upon completion of the loadout, all lines used for loading shall be purged of VOC vapors. These VOC vapors shall be recycled for compression (ARM 17.8.752).

B. Testing Requirements

1. BPE shall test the 600 HP Caterpillar G398TA natural gas compressor engine, for NO_x and CO, concurrently, and demonstrate compliance with the emission limits contained in Section II.A.1 on an every four-year basis or another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM17.8.749).

2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. BPE shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. BPE shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

3. All records compiled in accordance with this permit must be maintained by BPE as a permanent business record for at least five years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

4. BPE shall document, by month, the hours of operation for the emergency flare. By the 25th day of each month, BPE shall total the hours for the previous month and provide a sum total for the rolling 12 months. This information will be used to verify compliance with the rolling 12-month limitation in Section II.A.7. The information for the previous 12 months shall be submitted along with the annual emission inventory (ARM 17.8.749).

5. BPE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission inventory information (ARM 17.8.749 and ARM 17.8.1204).

SECTION III: General Conditions

A. Inspection – BPE shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if BPE fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving BPE of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*. (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by BPE may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Construction Commencement – Construction must begin within three years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

Permit Analysis
Bear Paw Energy, Inc.
Baker North Compressor Station
Fallon County, MT
Permit #2982-02

I. Introduction/Process Description

Bear Paw Energy, Inc, (BPE) owns and operates a natural gas compressor and dehydration station known as the North Compressor Station. The facility is located on Anticline Road in Section 4, Township 9 North, Range 58 East, in Fallon County, near Baker, Montana.

A. Permitted Equipment

Table 1 details the North Compressor Station's permitted equipment.

Table 1 – The North Compressor Station Permitted Equipment

Unit Name	Installed	Make	Model	Size	Source
Compressor	1997	Caterpillar	G398TA SN: 73B1519	600 HP	01
Dehydrator Reboiler (Regenerator) Heater	1997	Allstates Equipment Co.	Reconditioned	200,000 BTU/hr	02
Reboiler Still Vent	1997				03
Flash Tank	Est 2006				04
Fugitive VOC	1997	Components in VOC Service	-	-	05
Product Loading	1997	Bottom Loading – Vapor Balance for Condensate Storage Tank			06
Utility Safety ("Emergency") Flare Pilot	1997	Flare Industries, Inc.	DU-6; 25 ft stack	3.7 MMBTU/hr	07
Utility Safety ("Emergency") Flare	1997	Flare Industries, Inc.	DU-6; 25 ft stack	3.2MMscfd (133.3 MM BTU/hr)	07

B. Source Description

The Baker North Compressor Station serves two primary purposes that include compressing and dehydrating gas that flows to the BPE Baker Gas Plant located 15 miles south of the compressor station. The gas contains moisture that must be removed from the system prior to being sent into the transmission system. This is accomplished with a dehydrator, also commonly called a reboiler or glycol unit.

The designed maximum throughput of the compressor station is 3.2 MMSCFD, but approximately 2.7 MMSCFD of produced gas will enter the suction of the three-stage compressor at 30-50 psig. The compressor will compress the gas to approximately 650 psig at the third-stage discharge. The third-stage discharge will be cooled to approximately 120^{o}F and the resulting liquids collected for truck transfer. The scrubber's liquids collected for truck transfer will be held in a tank with a gas line recycled to the first-stage discharge. The cooled third-stage discharge gas flows to the triethylene glycol (TEG) dehydration skid.

By contacting the water-saturated gas with the TEG, also known as lean glycol, the gas stream is "dried" by removing the water to approximately four to five lbs/MMSCF, which results in a 20^{o}F dewpoint for the gas. The TEG-to-water ratio (how many gallons of TEG are required to

absorb 1 pound of water) varies between 2 and 5 gallons of TEG per pound of water; the industry accepted rule-of-thumb is 3 gallons of TEG per pound of water removed. Emissions are related to the glycol recirculation rate.

The dried gas flows through the pipeline to the BPE Baker Gas plant. The rich glycol stream, laden with moisture, methane, and Volatile Organic Compound (VOC), will pass through a flash tank to remove up to 50% of the VOC as "flash off gas". This collected flash off gas is reintroduced into the station inlet. The rich glycol stream is then processed in the TEG regenerator, also known as the reboiler, to remove the absorbed water, remaining methane and VOC. The glycol returns to the absorber as lean glycol. The TEG regenerator off gas will be directly emitted from the still vent.

The 25-foot flare stack provides emergency pressure relief and blowdown capability for the North Compressor Station down time. In order to maintain potential emissions below major source thresholds, use of the emergency flare is limited to 1,800 hours per year.

C. Permit History

On April 1, 1997, BPE submitted an application for Permit **#2982-00** to construct a new facility, the Baker North Compressor station. The permit application was not deemed to be complete until July 15, 1997, and the final air quality preconstruction Permit #2982-00 was issued on September 3, 1997.

On February 15, 2000, the Department of Environmental Quality (Department) received, from TransMontaigne, Inc., a notification of an error contained in the permit in the legal description of BPE's North Compressor Station. Permit #2982-00 incorrectly identified the location of the compressor station as being in Section 3. The correct legal description for BPE's North Compressor Station is SW NW Section 4, Township 9N, Range 58E, Fallon County, Montana. The current permit action is an administrative action. Permit **#2982-01** replaces Permit #2982-00.

On June 19, 2003, BPE submitted an application for Permit **#2982-02** to replace the existing vapor recovery unit (VRU) control system with a flare, for the dehydration still vent gases. On October 10, 2003, the Department issued a deficiency letter that requested a Best Available Control Technology (BACT) analysis. BPE sent a letter on December 17, 2003, requesting additional time, but since no information was forthcoming the permit application was considered withdrawn.

D. Current Permit Action

On August 15, 2005, the Department received from BPE a permit application for the proposed replacement of the VRU by a continuous flare, to control VOC emissions from the reboiler still vent. The application also requested operational restrictions of 1,800 hours per year for the facility's existing Emergency Flare, to allow the facility to operate as a synthetic minor source.

The Department determined the application was incomplete and requested more information on August 29, 2005. BPE provided a response on September 30, 2005. After review, it was determined that additional information was required and the Department requested this information on October 13, 2005. On December 9, 2005, the Department received the BACT analysis for the proposed project. BPE's December submittal concluded that it was economically infeasible to install a flare, and revised their proposal to reflect the removal of the VRU and installation of a flash tank. Permit **#2982-02** replaces Permit #2982-01.

E. Additional Information

Additional information, such as applicable rules and regulations, BACT/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   BPE shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than four hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter

8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}
11. ARM 17.8.230 Fluoride in Forage

BPE must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, BPE shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. (4) Commencing July 1, 1972, no person shall burn liquid or solid fuels containing sulfur in excess of 1 pound of sulfur per million Btu fired. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. BPE will consume pipeline-quality natural gas, which will meet this limitation.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). The BPE North Compressor Station is not an NSPS affected source because it does not meet the definition of a natural gas processing plant defined in 40 CFR 60.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 63. Since the emission of Hazardous Air Pollutants (HAP) from the BPE North Compressor Station is less than 10 tons per year for any individual HAP and less than 25 tons per year for all HAPs combined, the facility is not subject to the provisions of 40 CFR Part 63.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. BPE submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any air contaminant sources that have the Potential to Emit (PTE) more than 25 tons per year of any pollutant. BPE's North Compressor Station has the potential to emit NOx, SOx, CO & VOC at greater than 25 tons per year; therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. BPE submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. BPE submitted an affidavit of publication of public notice for the August 7, 2005, issue of the Sidney Herald, a newspaper of general circulation in the Town of Sidney in North County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving BPE of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.

12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than one year after the permit is issued.

13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

15. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

   This facility is not a major stationary source since this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions). This alteration will not cause a net emission increase greater than significant levels and, therefore, does not require a New Source Review (NSR) analysis).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:

   a. PTE > 100 tons/year of any pollutant;

   b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

   c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2982-02 for the BPE North Compressor Station, the following conclusions were made:

   a. The facility's PTE is less than 100 tons/year for any pollutant.

   b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

   d. This facility is not subject to any current NSPS.

   e. This facility is not subject to any current NESHAP standards.

   f. This source is not a Title IV affected source, nor a solid waste combustion unit.

   g. This source is not an EPA designated Title V source.

   h. As allowed by ARM 17.8.1204(3), the Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's potential to emit.

      i. In applying for an exemption under this section, the owner or operator of the source shall certify to the Department that the source's potential to emit, does not require the source to obtain an air quality operating permit.

ii. Any source that obtains a federally enforceable limit on potential to emit shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

BPE has taken federally enforceable permit limits to keep potential SO_x and CO emissions below major source permitting thresholds by limiting the emergency flare hours to less than 1,800 hours per rolling 12-months. Therefore, the facility is not a major source and, thus a Title V operating permit is not required.

The Department determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement.

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness.

BPE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204 (3)(b). The annual certification shall comply with requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission inventory information.

BPE is not subject to the Title V Operating Permit Program because a Federally enforceable limitation has been established to limit BPE's PTE below the major source threshold. Based on these facts, BPE will be a minor source of emissions, as defined under the Title V Operating Permit Program.

III. BACT Determination

A BACT determination is required for each new or altered source. BPE shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

The Baker North Compressor Station dehydrates the gas that flows to the BPE Baker Gas Plant. The gas contains moisture that must be removed from the system prior to being sent into the transmission system. This is accomplished with a glycol dehydration unit.

By contacting the water-saturated gas with TEG, also known as lean glycol, the gas stream is "dried" by removing the water to approximately four to five lbs/MMSCF in the dehydration unit. The TEG-to-water ratio (how many gallons of TEG are required to absorb 1 pound of water) varies between 2 and 5 gallons of TEG per pound of water; the industry accepted rule-of-thumb is 3 gallons of TEG per pound of water removed. Emissions are related to the glycol recirculation rate. Gas production fields experience declining production, as pressure is drawn off the reservoir. Wellhead glycol dehydrators and their TEG circulation rates are designed for the initial, highest production rate, and therefore, become over-sized as the well matures. It is common that the TEG circulation rate is much higher than necessary to meet the sales gas specification for moisture content.

The rich glycol stream, laden with moisture, methane, and VOC (including HAPs such as benzene, toluene, ethyl benzene and any of the isomers of xylene) removed from the wet gas, is processed in the TEG regenerator, also known as the reboiler. Through a distillation process in the reboiler, the absorbed water, remaining methane and VOC is removed. The glycol returns to the absorber as lean glycol. The TEG reboiler off gas is emitted.

A BACT analysis was submitted by BPE in Permit Application #2982-02, evaluating the available methods of controlling VOC & HAP emissions from the glycol dehydration regenerator unit. The existing VRU system experienced routine maintenance problems due to condensation of water vapor, and BPE requested to replace this system with a different control option that would meet BACT. Uncontrolled potential emissions from the glycol dehydration unit are 37.9 tons per year of VOC.

A. Identify All Control Options

The following control technologies were evaluated for minimizing VOC and HAP emissions from the glycol dehydration unit:

- Thermal Oxidizer
- Carbon Adsorption
- Flare
- Vapor Recovery Unit/Condenser Unit
- Flash Tank

B. Remove all Technically Infeasible Options

BPE concluded that carbon adsorption is not technically feasible due to the high moisture content and temperature of the dehydrator still vent emissions.

C. List all Technically Feasible Options, by Control Efficiency

Control Technology	Approximate Control Efficiency (%)	Cost ($/ton)	Evaluation
Thermal Oxidizer	99% -99.9%	$2,300	Cost Prohibitive
Flare	98%	$2,030	Cost Prohibitive
Vapor Recovery Unit/Condenser Unit	90% - 95%	$2,318	Cost Prohibitive
Flash Tank	40% - 50%	--	BACT

1. **Thermal oxidizers** can burn the vent gases at destruction efficiencies of greater than 99%. Thermal incinerators do not necessarily require supplemental fuel, because the retention of the flame heat in the incinerator chamber can allow the unit to burn mixtures with lower heating (BTU) values. However, BPE anticipated that an 80,000 BTU/hr burner would be required to maintain adequate temperature.

2. **Flares** can burn the vent gases with destruction efficiencies of VOC/BTEX of 98% or more if designed in accordance with 40 CFR 60.18. BPE evaluated the addition of an auxiliary burner and retrofitting the existing emergency flare to handle the additional still vent gases.

   Flare systems are not typically installed on TEG dehydrators operating in colder climates for a number of reasons including:

   - Flare systems can exert back pressure on the reboiler;
   - Unless a flare system is heat traced, or designed with a slope and insulation that allows liquids to flow back into the still column, the high water content may lead to freezing in colder conditions;
   - An eductor may be required to move the low pressure gas from the still column to the flare; and
   - A flare may require supplemental fuel gas to enable burning of the high water content (>95%) still column vent vapors. BPE anticipated that a 80,000 BTU/hr burner would be required to maintain adequate temperature.

3. **Vapor Recovery Unit/Condenser -** Vapors from the still column can be routed to a dedicated condensing device which cools the vapor stream and causes the water vapor and most of the aromatic hydrocarbons to condense. The non-condensable vapor, including methane, may be

used for fuel, incinerated or compressed into the natural gas stream to be dehydrated. The condensed vapor can be separated into water and hydrocarbon liquid and disposed of or processed at another facility to recover hydrocarbons.

Ambient air condensers, forced air-cooled condensers, water cooled condensers and refrigerated condensers are all types of design variations that can be used. Air-cooled condensers are one of the most commonly used options for larger facilities due to the relatively simple design and low capital cost. Properly operating condensers can achieve VOC/BTEX control efficiency of 85% to 99%.

4. **Flash Tank –** VOC/BTEX can be partially removed from the rich TEG by passing the stream through a glycol flash separator. The separated gas can be disposed of by flaring or incineration, condensing for sale as product, accumulating as sales gas, or used a supplemental fuel gas for the reboiler. The flash tank may also maximize VOC/BTEX recovery efficiency of any controls installed on the reboiler still column (i.e., VRU).

D. Eliminate all Economically Infeasible Control Options

1. **Thermal oxidizers -** The total annual cost, using EPA's Air Pollution Control Cost Manual methodology, showed an annual cost of $87,061, for a cost of $2,300 per ton of VOC controlled. This is over what is typically required for VOC BACT and can be considered cost prohibitive.

2. **Flares -** The total annual cost, using EPA's Air Pollution Control Cost Manual methodology, showed an annual cost of $76,141, for a cost of $2,030 per ton of VOC controlled. This is over what is typically required for VOC BACT and can be considered cost prohibitive.

3. **Vapor Recovery Unit/ Condenser -** Because BPE has historically had maintenance issues with the Hy-Bon VRU that they installed in 1997, they evaluated replacing the VRU with a better design. The total annual cost was computed, using a 1997 quote from Sivalls, Inc., for $44,000 converted to 2005 dollars of $54,610. Using EPA's Air Pollution Control Cost Manual methodology, replacement of the VRU would have an annual cost of $83,462, for a cost of $2,318 per ton of VOC controlled. This is over what is typically required for VOC BACT and can be considered cost prohibitive.

4. **Flash Tank –** since BPE chose the flash tank as BACT, they did not further evaluate cost.

E. Select BACT

BPE shall install a flash tank prior to the reboiler, which is expected to remove up to 50% of the VOC vapors.

The Department reviewed these methods, as well as previous BACT determinations. The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

The following table presents the annual potential to emit in tons per year for BPE's North Compressor Station. The PTE for the Dehydration Unit takes into account the VOC emission reductions realized by using a flash tank with zero emissions. Since BPE has taken a restriction of 1,800 hours per year for the emergency flare, the emissions from combusting up to 0.13 MMscf/hr (3.2 MMscfd) of natural gas released from emergency situations have been reduced accordingly.

Emission Inventory – Permit #2982-02 BPE North Compressor Station

Source	Tons per Year PM-10	NOx	VOC	CO	SOx
600 HP Caterpillar Engine G398TA	0.17	11.59	5.79	11.59	0.01
Dehydrator Regenerator Heater (0.2 MMBTU/hr)	0.0067	0.088	0.0048	0.07	0.0005
Dehydration Unit – Regenerator Still vent			20.61		
Flash Tank			0.00		
Fugitive VOC Emissions			0.75		
Liquid Condensate Loading			1.68		
Utility "Emergency" Flare - Pilot	0.12	1.6	0.088	1.34	1.46
Utility "Emergency" Flare – Product Combustion (Restricted to 1,800 hrs/yr)	0.91	8.16	16.80	44.40	39.89
TOTAL EMISSIONS	**1.21**	**21.44**	**45.72**	**57.40**	**41.36**

The following includes revised/updated emission calculations:

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Dehydration Unit

Dehydration Regenerator Heater (0.20 MMBTU/hr)

Fuel Consumption: 0.2 MMBtu/hr
0.2 MMBtu/hr / 1000 MMBtu/MMscf = 0.0002 MMscf/hr

PM-10 Emissions:
Emission Factor: 7.6 lb/MMscf gas {AP-42, 1.4-1, 7/98}
Fuel Consumption: 0.0002MMscf/hr {Information from company}
Calculations: 7.6 lb/MMscf gas* 0.0002MMscf gas/hr* 0.0005 ton/lb *8760 hr/yr = 0.0067 ton/yr

NOx Emissions:
Emission Factor: 100 lb/MMscf gas {AP-42, 1.4-2, 7/98}
Fuel Consumption: 0.0002MMscf/hr {Information from company}
Calculations: 100 lb/MMscf gas* 0.0002MMscf gas/hr* 0.0005 ton/lb *8760 hr/yr = 0.088 ton/yr

VOC Emissions:
Emission Factor: 5.50 lb/MMscf {AP-42, 1.4-3, 7/98}
Fuel Consumption: 0.0002MMscf/hr {Information from company}
Calculations: 5.5 lb/MMscf gas* 0.0002MMscf gas/hr* 0.0005 ton/lb *8760 hr/yr = 0.0048 ton/yr

CO Emissions:
Emission Factor: 84 lb/MMscf {AP-42, 1.4-3, 7/98}
Fuel Consumption: 0.0002MMscf/hr {Information from company}
Calculations: 84lb/MMscf gas* 0.0002MMscf gas/hr* 0.0005 ton/lb *8760 hr/yr = 0.073 ton/yr

SOx Emissions:
Emission Factor: 0.6 lb/MMscf {AP-42, 1.4-3, 7/98}
Fuel Consumption: 0.0002MMscf/hr {Information from company}
Calculations: 0.6 lb/MMscf gas* 0.0002MMscf gas/hr* 0.0005 ton/lb *8760 hr/yr = 0.0005 ton/yr

Dehydrator Still Vent Emissions

VOC emissions from the Dehydrator Unit were calculated using the GRI-GLYCalc, Version 4.0 program. For detailed input parameters, refer to the permit application.

Hours of operation: 8760 hr/yr
Max Dry Gas Flow Rate: 3.2 MMscf/day (max design)
Glycol Recirculation Rate: 1.5 gallons per minute

Dehydrator Regenerator Still Vent – no control
Emission Factor: 4.71 lb/hr (GRI-GLYCalc, Version 4.0)

Calculations: 4.71 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 20.61 ton/yr

Flash Tank

Zero emissions – flash off gas re-introduced into process

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Guyed Utility ("Emergency") Flare

Flare - Pilot

Pilot burner: 0.0036 scf/hr {Permit #2982-00}

PM-10 Emissions:
Emission Factor: 7.6 lb/MMSCF {AP-42, 1.4-1, 7/98}
Calculations: 7.6 lb/MMSCF * 0.0036 MMSCF/hr * 8760 hr/yr * 0.0005 ton/lb = 0.12 ton/yr

NOx Emissions:
Emission Factor: 100 lb/MMscf gas {AP-42, 1.4-2, 7/98}
Calculations: 100 lb/MMscf gas * 0.0036 MMscf/hr * 0.0005 ton/lb *8760 hr/yr = 1.6 ton/yr

VOC Emissions:
Emission Factor: 5.5 lb/MMSCF {AP-42, 1.4-1, 7/98}
Fuel Consumption: 5.5 * lb/MMSCF * 0.0036 MMSCF/hr * 8760 hr/yr * 0.0005 ton/lb = 0.088 ton/yr

CO Emissions:
Emission Factor: 84 lb/MMSCF {AP-42, 1.4-1, 7/93}
Fuel Consumption: 84 * lb/MMSCF * 0.0036 MMSCF/hr * 8760 hr/yr * 0.0005 ton/lb = 1.34 ton/yr

SOx Emissions:
544.00 ppm H2S
544 ppm H2S $\frac{(1\ grn/100\ scf\ *16\ ppm)}{(7000\ grain/1\ lb)} = \frac{0.0049\ lbs\ H2S}{100\ scf} \times \frac{64.06\ lbs\ SO2}{34.08\ lb\ H2S} = \frac{.00913\ lbs\ SO2}{100\ scf}$

Emission Factor: 91.3 lb SO2/MMSCF
91.3 lb SO2/MMSCF * 0.003653 MMSCF/hr * 8760 hr/yr * 0.0005 ton/lb = 1.46 ton/yr

Flare - Product

Combustion of Natural Gas Product (Emergency Release from facility)
Fuel (Product) Consumption: 3.2 MMscf/day (=0.1333 MMscf/hr or 133.3MMBTU/hr)
Fuel Type: 0.2% sulfur in the fuel {Permit Application #2982-02}
Hours Limitation: 1,800 hours/year

PM-10 Emissions:
Emission Factor: 7.6 lb/MMSCF {AP-42, 1.4-1, 7/98}
Calculations: 7.6 lb/MMSCF * 0.1333 MMSCF/hr * 1,800 hours/year * 0.0005 ton/lb = 0.91 ton/yr

NOx Emissions:
Emission Factor: 0.068 lb/MMBTU {AP-42, 13.5-4, 1/95}
Calculations: 0.068 lb/MMBTU * 133.3 MMBTU/hr * 1,800 hours/year * 0.0005 ton/lb = 8.16 ton/yr

VOC Emissions:
Emission Factor: 0.14 lb/MMBTU {AP-42, 13.5-4, 1/95}
Calculations: 0.14 lb/MMBTU * 133.3 MMBTU/hr * 1,800 hours/year * 0.0005 ton/lb = 16.80 ton/yr

CO Emissions:
Emission Factor: 0.37 lb/MMBTU {AP-42, 13.5-4, 1/95}
Calculations: 0.37 lb/MMBTU * 133.3 MMBTU/hr * 1,800 hours/year * 0.0005 ton/lb = 44.39 ton/yr

SOx Emissions:
Emission Factor: 0.2% H_2S {2982-02}
Calculations: 0.1333MMSCF/hr * 0.2% H2S = 266.67 scf/hr H2S
266.67 scf/hr H2S * 1 lb mol/385 scf = 0.6926 lb mol/hr
0.6926 lb mol/hr * 64 b SO2 / lb mol = 44.33 lb/hr SO2

44.33 lb SO2/hr * **1,800** hr/yr * 0.0005 ton/lb = 39.89 ton/yr

V. Existing Air Quality

The facility is located in the SW¼ of the NW¼ of Section 4, Township 9 North, Range 58 East, in Fallon County. Fallon County is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

VI. Ambient Air Impact Analysis

The Department determined that the impacts from this permitting action will be minor. The Department believes that the amount of controlled emissions generated by this project will not cause or contribute to a violation of any set ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

Analysis Prepared By: Christine A. Weaver
Date: January 18, 2006

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Bear Paw Energy, Inc. - North Compressor Station
1400 16th Street, Suite 310
Denver, CO 80202

Air Quality Permit Number: 2982-02

Preliminary Determination Issued: 01/18/06
Department Decision Issued: 02/03/06
Permit Final: 02/22/06

1. *Legal Description of Site*: BPE's North Compressor Station is located in Section 4, Township 9 North, Range 58 East in Fallon County, Montana.

2. *Description of Project*: The North Compressor Station is an existing station built in 1997 that compresses, dehydrates, and transports natural gas from the nearby gas field to the Baker Station located 15 miles south. The natural gas fired compressor engine compresses the gas for transmission through the pipeline. The dehydrator removes the moisture from the natural gas using triethylene glycol. A dehydrator regenerator (also known as a reboiler) distills the used glycol for re-use, and removes the moisture-laden air which contains methane, VOCs & HAPs.

   Currently the emissions from the reboiler are controlled by use of a VRU. BPE proposes to remove the VRU, which routinely has maintenance problems, and install a flash tank. BPE also proposed to restrict the hours of operation for the emergency flare to less than 1,800 hours per year, in order to stay below major source thresholds.

3. *Objectives of Project*: The proposed project would allow BPE remove the VRU which has had numerous mechanical failures over the past few years due to corrosion, install a flash tank, and limit the hours of operation of the emergency flare in order to optimize operations at the North Compressor Station and remain under Title V permitting thresholds.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the Montana Air Quality Permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Bear Paw demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, is included in Permit #2982-02.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and would not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics				X		Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites				X		Yes
J	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS:
The Department has prepared the following comments.

A. Terrestrial and Aquatic Life and Habitats

Emissions from the proposed project may have a minor impact terrestrial and aquatic life and habitats in the proposed project area. However, as stated in Section V and Section VI of the permit analysis and Section 7.F of this EA, any emissions and resulting impacts from the project would be minor due to the low concentration of those pollutants emitted.

Further, the proposed project is within an existing facility and no new construction or ground disturbance to the area would be required. Overall, any impact to the terrestrial and aquatic life and habitats of the proposed project area would be minor.

B. Water Quality, Quantity, and Distribution

The proposed project would not affect water quantity or distribution in the proposed project area. The proposed project is within an existing facility and no new construction or ground disturbance to the area would be required. Further, the project would not discharge or use water as part of normal operations.

Emissions from the proposed project may have a minor impact on water quality in the proposed project area. However, as detailed in Section V and Section VI of the permit analysis and Section 7.F of this EA, any emissions and resulting deposition impacts from the project would be minor due to the low concentration of those pollutants emitted.

C. Geology and Soil Quality, Stability, and Moisture

The proposed project would not impact the geology, soil quality, stability, and moisture of the proposed project area. The proposed project is within an existing facility and no new construction or ground disturbance to the area would be required.

Further, as described in Section V and Section VI of the permit analysis, and Section 7.F of this EA, the project would result in a minor increase in air pollution emissions to the outside ambient environment. These pollutants may deposit on the soils in the surrounding area. Any impact from deposition of these pollutants would be minor due to dispersion characteristics and the low concentration of those pollutants emitted.

D. Vegetation Cover, Quantity, and Quality

Emissions from the proposed project may have a minor impact on vegetation cover, quantity, and quality in the proposed project area. However, as detailed in Section V and Section VI of the permit analysis and 7.F of this EA, any emissions and resulting impacts from the project would be minor due to dispersion characteristics of pollutants and the atmosphere, and the low concentration and magnitude of those pollutants emitted.

Further, the proposed project is within an existing facility and no new construction or ground disturbance to the area would be required. Overall, any impact to the vegetation cover, quantity, and quality of the proposed project area would be extremely minor.

E. Aesthetics

No impacts would result on the aesthetic value of the area from this project because the facility is an existing facility and the proposed project only allows BPE to switch controls. The aesthetics would remain the same.

F. Air Quality

The air quality of the area would realize minor impacts from the proposed project because the replacement of the VRU with the flash tank could allow an additional 16.6 tons per year of VOC emissions. However, the Department believes that the emissions would exhibit good dispersion characteristics resulting in relatively low deposition impacts. The impacts from deposition of pollutants would be minor due to dispersion characteristics of pollutants (stack height, stack temperature, etc.) and atmosphere (wind speed, wind direction, ambient temperature, etc.). The amount of air concentration of pollutants would be relatively small, and the corresponding deposition of those air pollutants would be minor.

The Department determined that controlled emissions from the source will not cause or contribute to a violation of any ambient air quality standard. Therefore, any impacts to air quality from the proposed project would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS). The NRIS search did not identify any known species of special concern located within the proposed project area. In this case, the project area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone. Due to the minor amount of construction that would be required and the fact that the project is limited to the existing facility, and due to the relatively low levels of pollutants that would be emitted, the Department determined that it would be unlikely that the proposed project would impact any species of special concern and that any potential impacts would be minor.

H. Demands on Environmental Resources of Water, Air, and Energy

The proposed project would have minor impacts on the demands for the environmental resources of air, because the glycol dehydrator would have a minor increase in the potential to emit air pollutants.

The proposed project would not be expected to have any impacts on the demand for the environmental resource of energy. Overall, the impacts for the demands on the environmental resources of water, air, and energy would be minor.

I. Historical and Archaeological Sites

In an effort to identify any historical and archaeological sites near the proposed project area, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO). According to SHPO records, there have not been any previously recorded historic or archaeological sites within the proposed area. In addition, SHPO records indicated that no previous cultural resource inventories have been conducted in the area. SHPO recommended that a cultural resource inventory be conducted to determine if cultural or historic sites exist and if they would be impacted. However, neither the Department nor SHPO has the authority to require BPE to conduct a cultural resource inventory. The Department determined that since this project is confined to the existing facility's site, there is no potential impact on historical or archaeological sites.

J. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts on the physical and biological aspects of the human environment in the immediate area would be minor due to the relatively small size of the project. The Department believes that the facility can be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #2982-02.

Additional facilities (compressor stations, gas plants, etc.) could locate in the area to withdraw natural gas from the nearby area and/or to separate the components of natural gas. However, any future facility would be required to apply for and receive the appropriate permits from the appropriate regulating authority. Environmental impacts from any future facilities would be assessed through the appropriate permitting process.

8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue				X		Yes
D	Agricultural or Industrial Production				X		Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities				X		Yes
G	Quantity and Distribution of Employment				X		Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity			X			Yes
K	Locally Adopted Environmental Plans and Goals			X			Yes
L	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:
The Department has prepared the following comments.

A. Social Structures and Mores
B. Cultural Uniqueness and Diversity

The proposed project would not be expected to cause any impact to the social and cultural resources in the area because the proposed project is a modification that would take place in a relatively remote location at an existing facility. There would not be any impact on social or cultural resources in the area.

C. Local and State Tax Base and Tax Revenue

The proposed project would not result in any impact to the local and state tax base and tax revenue because no new employees would be expected as a result of this project. Further, the proposed project would necessitate negligible installation activities and typically would not require an extended period of time for completion. Therefore, any installation related jobs would be temporary and not have any foreseeable corresponding impacts on the tax base/revenue.

D. Agricultural or Industrial Production

The proposed project would not impact Agricultural or industrial production because the proposed project would simply allow a change of control equipment at an existing facility.

E. Human Health

The proposed project would result in minor, if any, impacts to human health. Deposition of pollutants would occur; however, the amount is small and the Department determined that the proposed project would comply with all applicable air quality rules, regulations, and standards. These rules, regulations, and standards are designed to be protective of human health. Overall any impacts to human health would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed project would have no impact on access to recreational and wilderness activities because the project effects only the existing facility.

G. Quantity and Distribution of Employment
H. Distribution of Population

The proposed project would have no impact on the employment and population because it consists of a modification at an existing facility. Any installation-related employment would be temporary due to the short time period that would be required for installing the flash tank.

I. Demands for Government Services

There would be minor impacts on the demands for government services because additional time would be required by government agencies to issue the appropriate permits for the proposed modifications and to assure compliance with applicable rules, standards, and conditions that would be contained in those permits. Overall, any demands for government services to regulate the project and activities associated with the synthetic minor status would be minimal.

J. Industrial and Commercial Activity

Only minor impacts would be expected on the local industrial and commercial activity because the proposed project only represents a minor increase in industrial activity, for a short period of time, at an existing facility.

K. Locally Adopted Environmental Plans and Goals

The Department is unaware of any locally adopted environmental plans or goals. The permit would ensure compliance with state standards and goals. The state standards would protect the proposed site and the environment surrounding the site.

L. Cumulative and Secondary Impacts

Cumulative and secondary impacts from this project would not impact the economic and social aspects of the human environment in the immediate area. Due to the relatively small size of the project, there would be no foreseeable change in the industrial production, employment, and tax revenue (etc.) impacts resulting from the proposed project. In addition, the Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #2982-02.

Recommendation: An EIS is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: There are no significant impacts resulting from the project; therefore, an EIS is not required.

Other groups or agencies contacted or which may have overlapping jurisdiction: Department of Environmental Quality - Permitting and Compliance Division (Air and Waste Management Bureau and Industrial and Energy Minerals Bureau); Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society).

Individuals or groups contributing to this EA: Department of Environmental Quality (Air Resources Management Bureau and Industrial and Energy Minerals Bureau), Montana Natural Heritage Program, and State Historic Preservation Office (Montana Historical Society).

EA prepared by: Christine Weaver
Date: January 18, 2006